GAULTHERIA SWARTZII, NOM. NOV. AND THE COMBINATIONS IN RAEUSCHEL'S NOMENCLATOR

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TWO NAMES have been used over the years for a plant of the mountains of Guadeloupe. Swartz described the species briefly but validly as *Epigaea cordifolia* (Prodr. 73. 1788), citing its locality as Guadeloupe. Four years later Richard (Actes Soc. Hist. Nat. Paris 1: 109. 1792) described a plant as *Gaultheria sphagnicola*. When published, however, this name was illegitimate, being superfluous, for Richard also cited *E. cordifolia* Sw. In 1797 Raeuschel published the binomial *Gaultheria cordifolia* (Nomencl. ed. 3. 124. 1797), which Urban (Symb. Ant. 3: 330. 1902) and Airy-Shaw (Kew Bull. 1940: 310. 1940) apparently regarded as a new combination. Assuming the basionym to be *Epigaea cordifolia* Sw., Small (N. Am. Fl. 29: 75. 1914) considered the Raeuschel name to be a *nomen nudum* and used the binomial *Gaultheria sphagnicola* Rich., as did Camp (Bull. Torrey Bot. Club 66: 19. 1939). Thus for *Gaultheria* two invalid names occur in recent literature and a new name is needed for this species. I propose **Gaultheria swartzii** nom. nov.

Raeuschel's binomial *Gaultheria cordifolia* is accompanied only by the name Cayenne and the classic symbol for a woody plant. There is no reference to Swartz's publication in the introduction. The binomial is not a combination and is a *nomen nudum*. However, the treatment of names in Raeuschel's *Nomenclator botanicus* has been inconsistent even in recent years. Steyermark's massive treatment of the Rubiaceae in Maguire *et al.*, *Botany of the Guayana Highlands*, Pt. *IX* (Mem. N. Y. Bot. Gard. 23: 227–832. 1972) illustrates this. In treating a comparable problem in *Psychotria guianensis* Raeuschel (*loc. cit.* 457), Steyermark concluded that most botanists consulted agreed that the binomial was a *nomen nudum* without either direct or indirect reference to any previously published name, and therefore it was illegitimate. However, for *Psychotria officinalis* (*loc. cit.* 614) Steyermark noted W. T. Stearn's suggestion that a combination be attributed not to Raeuschel (1797) but to Sandwith (1931), although Sandwith did not discuss the problem (Kew Bull. 1931: 473. 1931). Elsewhere in his publication Steyermark accepted Raeuschel's combinations for *Psychotria paniculata* (Aubl.) Raeusch. (*loc. cit.* 500) and *Psychotria racemosa* (Aubl.) Raeusch. (*loc. cit.* 542), even though these names carried no direct or indirect reference to the Aublet binomial. For these as well as for many other combinations attributed to Raeuschel a search must be made for a later valid combination or an alternative name.

Gaultheria swartzii Howard, nom. nov.

Brossaea coccinea L. Sp. Pl. 1190. 1753; not *Gaultheria coccinea* H.B.K. (1819) or *Gaultheria coccinea* (L.) Urb. 1902.
Epigaea cordifolia Sw. Prodr. 73. 1788; not *Gaultheria cordifolia* H.B.K.
Gaultheria sphagnicola Rich. Actes Soc. Hist. Nat. Paris **1**: 109. 1792; *nomen illegit.*
Brossaea anastomosans Griseb. Fl. Brit. W. Ind. 142. 1859; *nomen illegit.* and also not *Gaultheria anastomosans* (L.) H.B.K. (1819).

Brossaea coccinea L. is based on Plumier, Gen. 5, *t. 17*. Urban proposed the combination *Gaultheria coccinea* (L.) Urb. (Symb. Ant. 3: 330. 1902), at which time he added the reference Plumier, Plantarum Americanarum ed. Burm. *t. 64, f. 2*. Small (N. Am. Fl. 29: 75. 1902) lists *Brossaea coccinea* L. in the synonymy of *Gaultheria sphagnicola* with a question and the Urban name *Gaultheria coccinea* "in part." Airy-Shaw (Kew Bull. 1940: 310. 1940) assigned *Gaultheria coccinea* (L.) Urb. to the synonymy of *Gaultheria cordifolia* (Sw.) Raeusch. No Plumier material has been seen, and it is possible the plant in question may have been seen in Guadeloupe and not in Hispaniola. In any case, *Gaultheria coccinea* H.B.K. (Nov. Gen. Sp. 3: 284. 1819) from Venezuela precludes any use of the Linnaean basionym.

Brossaea anastomosans Griseb. (Fl. Brit. W. Ind. 142. 1859) is a combination for *Andromeda anastomosans* L., although Grisebach also cited in synonymy *Epigaea cordifolia* Sw. *Gaultheria anastomosans* (L.) H.B.K. (Nov. Gen. Sp. 3: 283. 1819) has the same basionym. Grisebach's general description does not permit typification by any of the synonyms cited.

To select a lectotype of *Gaultheria swartzii* is not an easy matter. In the original publication, Swartz (Prodr. 73. 1788) indicated the species to be from Guadeloupe. In the subsequent treatment, Swartz (Fl. Ind. Occ. 2: 842. 1800) cited a Du Ponthieu collection from Guadeloupe and one by Le Blond from Cayenne. I have seen neither collection. Richard (Actes Soc. Hist. Nat. Paris 1: 109. 1792) did not cite a specimen, but in the Richard herbarium (P) there is a specimen labeled "type" and named *Gaultheria sphagnicola* from the Soufrière of Guadeloupe. The label notes, however, that the plant also occurs in Martinique on Monte Calvo. If the Du Ponthieu specimen were located, this logically would be the lectotype.

Small (N. Am. Fl. 29: 75. 1914) indicated the range of this species to be Guadeloupe, Trinidad, and northern South America. A. De Candolle (DC. Prodr. 7: 592. 1838), under *Epigaea cordifolia*, cited a collection (*Sieber 346*) from Trinidad. Sieber's collections often have unreliable data, and this specimen, which I have not seen, may be from Guadeloupe or Martinique. The species has not been collected in Trinidad according to Hill & Burtt (Fl. Trin. & Tobago 2(2): 114. 1940). The Le Blond collection, also cited by De Candolle from "Cayennae seu Guianae Gallicae," should be re-examined for verification that it is the present species and not one of the many from South America. Modern collections are on

hand from Guadeloupe and Martinique, but only from elevations of 1200 to 1467 m. in altitude. The species might also be expected in Dominica.

Camp (Bull. Torrey Bot. Club 66: 19. 1939) noted that *Gaultheria sphagnicola* (= *G. swartzii*) and *G. domingensis* are very similar. Small (N. Am. Fl. 29: 74. 1914) distinguished the two species on the basis of the glabrous corolla with leaf blades manifestly toothed in *G. sphagnicola* and the pubescent corolla with leaf blades obscurely toothed in *G. domingensis*. Recent collections from both areas substantiate Camp's observation that a pubescence does occur on the corollas of plants from the Lesser Antilles, although none matches the abundance of hairs on material from Hispaniola. The leaf blade differences are obvious and of specific value. Material of *G. swartzii* from Guadeloupe and Martinique has short blunt teeth, each terminating in a fairly stout seta. Hispaniolan material has leaves with the margin inrolled or thickened but without teeth. Large setae are marginal without noticeable toothlike bases.

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